

REMARKS

Claims 2-12, 22-27 and 31-48 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-5, 7-10, 12-16, and 18-30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Foran (U.S. Pat. No. 5,554,252). This rejection is respectfully traversed.

As the Examiner notes, Foran discloses a machine for bonding two sheets together including a lower portion (82) with vacuum cups (74) for holding skin (44) and an upper portion (78) with vacuum pads (66) for holding reinforcement member (46). In rejecting claims 1-4, 13-16 and 20-30 as originally filed, the Examiner equates the vacuum cups (66, 74) disclosed in Foran with the recessed channel claimed in the present application.

Applicant submits that a cup is not the equivalent of a channel. Structurally, a cup tends to be circular, whereas as a channel is elongated. Vacuum cups are soft and have thin deformable walls to create a seal, thereby having little lateral stability. This is significant in that the vacuum cups disclosed in Foran are only able hold skin 44 and member 46 in discrete and spaced apart locations. Given that Foran discloses a bonding operation, this type of clamping is adequate since there are little to no lateral forces that would cause the reinforcement member 46 to skid relative to the skin 44. As shown in FIGS 6 and 7, these vacuum assemblies 64, 72 are cantilevered up from base 82 and are located well inboard of block member 84. Foran instead relies principally on

the vertical walls on block 84 and the clamping forces generated between block 84 and block 100 as best seen in FIG 9 to immobilize skin 44 and member 46.

In contrast, the present application is directed to an apparatus used in press hemming and roller hemming operations. These forming operations impart significant lateral forces as a flange is folded or rolled over. The channels recited in the claims are able to provide a holding force along the entire length of the channel to immobilize the sheet material against these significant lateral forces. Applicant presents new and amended claims which more particularly point out this aspect by expressly reciting "an elongated channel." In addition, the new and amended claims recite the location of such pads as "adjacent to a portion of said material contacting portion."

Lastly, Foran fails to disclose a lower nest in which the material-contacting area is laterally accessible by the forming tool as called for in the new and amended claims. As noted above, the vertical walls on block 84 prevent lateral access to the material-contacting area. For each of the above-stated reasons, Foran fails to disclose or suggest both the structure and the function recited in the claims as originally filed and as amended and presently pending.

REJECTION UNDER 35 U.S.C. § 103

Claim 6, 11 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Foran (U.S. Pat. No. 5,554,252). This rejection is respectfully traversed.

In rejecting claims 6 and 17, the Examiner states that the connector tubes (96) in Foran are the functional equivalent of the crowders as recited in the subject claims. However, the connector tubes do not align the upper sheet material to the lower sheet

material as required by these claims. Specifically, connecting tubes 96 are fixed within block members 84, 100 and form part of the bonding apparatus to communicate pressurized air from the main manifold 98 to the bonding manifold 92. See, Foran, col. 5, lines 33-38. In contrast, the recited crowders include "a pivoting alignment finger" for aligning the upper sheet material to the lower sheet material. As such, Foran fails to disclose or suggest both the structure and the function recited in claim 6 and new claim 44.

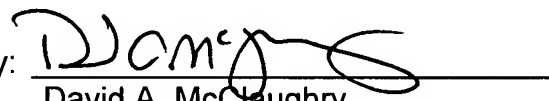
CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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